

<http://www.eludamos.org>

**The Meaning of Playfulness:
A Review of the Contemporary Definitions of the Concept across Disciplines**
Leland Masek and Jaakko Stenros
Eludamos: Journal for Computer Game Culture. 2021; Vol. 12 (1), pp. 13–37

The Meaning of Playfulness: A Review of the Contemporary Definitions of the Concept across Disciplines

LELAND MASEK AND JAAKKO STENROS

Playfulness, as a concept, is in use in numerous scholarly fields from game studies to psychology and from occupational therapy to sexuality studies. However, the conceptualization of playfulness is marked by ambiguity—it varies, especially across disciplines. Playfulness has been defined as the opposite of several constructs such as an adult worldview (Lester and Russel 2010, p. 7), work (Glynn and Webster 1992), and rule-boundedness (see ‘gamefulness’ vs. ‘playfulness’ in Bischof et al. 2016). Playfulness, in exact opposite, has also been defined as an adult worldview (Shen, Chick, and Zinn 2014), as causing “substantial desired work outcomes” (Yu et al. 2007, p. 423), and as following rules (Loukatari et al. 2019). The depth and breadth of contradictions has also been interpreted by certain influential scholars as there being no essential definition for playfulness (e.g., Lester 2019; Turner 1986).

Despite these theoretical conflicts, the most influential definitions of playfulness derive from interdisciplinary theories. The Test of Playfulness (Skard and Bundy 2008) which is commonly used in occupational therapy was derived by integrating Neumann’s (1971) work in education and Bateson’s (1955) work in anthropology. *Perceived playfulness* (Moon and Kim 2001) is a widely used theory for human-technology interaction and is derived from positive psychology (Csikszentmihalyi 1990; Deci and Ryan 2000) and computer game research for school-aged children (Malone 1981). Scholars have consistently gained value from interdisciplinary attempts of synthesis on how playfulness is essentially defined—and recently several scholars have argued the value of additional interdisciplinary literature review upon the term ‘playfulness’ (e.g., Proyer 2017a; Stenros 2015).

In this article we conduct a qualitative, systematic, and interdisciplinary literature review on the term ‘playfulness’ as used in recent scholarship. The goal is to reduce ambiguity relating to the concept, to improve interdisciplinary awareness of the term’s meaning and contexts of use, and to provide a foundation for a new theoretical synthesis. This research prioritizes essential definitions of playfulness applied for any purpose, published in any academic form, within any field of study. This wide, theoretical inclusion requires a qualitative methodology and deep understanding of what each publication means in its publication context. The article first motivates the need to look at ‘playfulness’ as its own concept, even across disciplines that have varying meanings for it. We then describe the method used in this study. Finally, we present the analysis, which is organized around the six themes relating to conceptualizations of playfulness. In the conclusions we propose a new synthesis.¹

Background and Context

Many past investigations that are used to frame the study of playfulness focus their work upon specific instances of playing such as playing games (Landers et al. 2019; Lucero et al. 2014), video games (Lazzaro 2009), or play in children (Lester and Russel 2008; Lieberman 2014). While this style of investigation is valuable, other scholars have argued broader scientific inquiries are equally as important to understand why a wide array of behaviors even outside of games and play are experientially connected (Csikszentmihalyi 1975b; Kerr and Apter 1991; Salen and Zimmerman 2004; Stenros 2015; Sutton-Smith 1997). This diverse category is often defined as being related to the more general term playfulness.

Previous literature reviews on playfulness have analyzed how it is used as a tool for learning (van der Meij et al. 2017), as a healthy disposition to the world (Gordon 2014; Sanderson 2010), an adult personality trait (Barnett 2018; Proyer 2017b; Shen et al. 2014; van Vleet and Feeney 2015). These systematic reviews are generally undertaken from the perspective of a single discipline and address literature closely related to a single field and conception of playfulness.

Part of the reason for the lack of broad and systematic literature reviews on playfulness is that it is difficult to connect and compare ways of thinking across disciplines. Grasping the precise meaning of the term 'playfulness' in every publication context is challenging and it is clear from our analysis that the scholars in different fields focus upon different aspects of the phenomenon.² This renders our synthetic project controversial, and open to valid criticism. However, while it is reasonable for scholars to decide that connecting the meaning of vocabulary across fields is not an endeavor that they will follow, that kind of endeavor has changed and improved the theoretical treatment of playfulness (e.g., Bundy 1987; Moon and Kim 2001; Proyer 2017a; Stenros 2015). It is a productive method that has been recently identified as critical in several academic fields (Proyer 2017a; Stenros 2015).

Broad synthetic qualitative research seeks to understand a diverse number of perspectives and relates them with each other into a coherent conversation. This creates opportunities for growth in all related fields of study, including when different phenomena are discussed using similar words. If we are to write texts believing that the words we use matter, then it is important to understand how others use the same words that we use.

Method

This literature review follows the tradition of *qualitative meta-synthesis* (Walsh and Downe 2005; also Paterson et al. 2001; Stern and Harris 1985, p. 152). Inclusion criteria for this work were based upon mapping grounded theory principles to academic literature including identifying key informants (Goulding 2002) and using those key informants to snowball into other relevant documents to review (Kitchenham and Charters 2007). Key informants for this review were defined as academically published documents with 'playfulness' in their title, signaling playfulness as an essential concept, that were published from 2014 to 2019. Originally, there were 506 results for these search criteria found via Google Scholar.

Literature was excluded if it was not written in English or did not present an essential conceptualization of playfulness.³ From the original 506 works, 286 written works were included in the initial review. From this original dataset any work that was cited for the definition of 'playfulness' was additionally included in the review, following an approach called the snowballing technique (Kitchenham and Charters 2007), snowballing added an additional 60 written works to the review. These 346 written works were the basis for the original thematic analysis. These 346 written works were analyzed using a five-phase thematic analytic approach (Yin 2015) leading to a qualitative meta-synthesis (Walsh and Downe 2005). The coding strategy integrated multiple criteria including Webster and Watson's (2002) criteria for a systematic literature review, Popay, Rogers, and Williams's (1998) standards for qualitative research, and Paterson, Thorne, Canam, and Jillings's (2001) recommendations for meta-syntheses to conduct a meta-data, meta-method, and meta-theory analyses.⁴ The primary quotations selected and analyzed were what the written work presented as the essential conceptualization for the term 'playfulness.'

In order to confirm this approach, additional literature using broader inclusion criteria were analyzed in groups of ten checking for theoretical saturation where "no new properties, dimensions, or relationships emerge during analysis" (Strauss and Corbin 1998, p. 143). If any new theoretical content was analyzed, an additional ten written works were read using that method. Confirmatory measures included works with 'playful' in their title from 2014 to 2019 (40 entries analyzed before saturation), works with 'playfulness' in their title from any time period (10 entries), works with 'playful' in their title from any time period (10 entries), works found on SCOPUS with the above criteria (40 entries), and finally works on SCOPUS with 'playful' or 'playfulness' in their abstract, keywords, or title from 2014 to 2019 and from any time period (40 entries). In total, an additional one-hundred and four new written works were included into the analysis. A total of 429 written works that defined playfulness were ultimately included in the review, with 184 extracted definitions.⁵

Results

By conducting a systematic, multidisciplinary, meta-synthesis upon the term 'playfulness,' several important results have been achieved. The first result is linguistic: 'playfulness' refers to the essence of the adjective 'playful.' In this way, 'playful' and 'playfulness' should be seen as effectively synonyms. This is in contrast to the relationship between 'play' and 'playfulness' which is sometimes presented as synonymous (e.g., Márquez Segura et al., 2016), but more often as two distinct, yet related, phenomena (Proyer 2017b, p. 3).

The second result is that playfulness is defined more by *how it operates* than what it is. We identified six themes of how playfulness was said to operate (see Table 1). These six themes are different forms of framing and prioritizing *engagement*. Playfulness was widely characterized as a *unique method of becoming involved* as opposed to creating distance.

Theme	In a word	Engagement	Commonly used criteria	Exemplary sources	Fields where prominent
Playfulness engages with a single context.	Focused	attentional fullness, emotional reinforcement, seeking understanding	concentration, enjoyment, escapism, immersion	Moon and Kim 2001	Human-Technology Interaction
Playfulness is open to be engage.	Openness	emotional reinforcement, seeking understanding, social perspective	curiosity, exploration, uninhibited, spontaneity	Gordon 2014; Bateson and Martin 2013; De Koven 2014	Education
Playfulness changes a context to increase engagement.	Framing	emotional reinforcement, sharing social perspective	framing, reframing, internal locus of control, intrinsic motivation	Proyer 2017b; Barnett 2007; Bundy et al. 2001	Personality Psychology, Occupational Therapy
Playfulness prioritizes engagement over external consequences.	Non-consequential	seeking understanding, emotional reinforcement	done for its own sake, means over ends orientation, paratelic, autotelic, intrinsic motivation	Huizinga 2002; Kerr and Apter 1991; Lucero et al. 2014; Stenros 2015	Game Studies
Playfulness prioritizes engagement over external reality.	Non-real reality	pattern interaction	imagination, internal reality, as if thinking, suspension of reality	Vygotsky 1980; Dewey 1997; Thibault 2016	Psychology (old)
Playfulness prioritizes engagement over conventionality.	Unconventional	pattern interaction, social agreement, emotional reinforcement	spontaneity, creativity, whimsical, parody, paradoxical	Lieberman 1976; Pharies 2015; Sutton-Smith 1997	Linguistics

Table 1: The six playfulness themes.

The first three themes describe different *methods* for how engagement is structured to become a higher priority than its *context*. The first theme describes a subject inside of a context being willing to engage to a high degree and ignore other options. The second theme describes a willingness to engage with many contexts and flexibly change in order to enable engagement. The third theme describes a capacity and willingness to alter a context in order to increase engagement for oneself or others.

The final three themes discuss *structural characteristics of contexts* that are playfully engaged in. The fourth theme describes playfulness as engaging with contexts that were structured to have no external consequences. The fifth theme discusses playfulness as engaging with things that are not really present in the current context. The sixth theme refers to ways of engaging in unconventional ways.

Theme 1: ‘Focused’

The first theme to emerge from the review depicts playfulness as a degree of *engagement with a single context*. Playfulness is further described as paying attention to this context, having strong emotional reinforcement⁶ to keep interacting with this context, and seeking to understand this context. The opposite of this form of playfulness is boredom. An example would be if a person was playing a game and became bored by what was happening and decided to do something else instead. If the person had continued to play the game and had felt strongly about what was happening in the game that would be playful.

Moon and Kim’s (2001) *perceived playfulness* is the most commonly used conceptualization within this theme and is highly influential for how playfulness is used in research on web applications and interactive digital media. Their work is cited several times in this sample (Codish and Ravid 2014; Hsieh and Tseng 2015; Hsieh and Tseng 2017; Hung, Tsai, and Chu 2016; Li and Chang 2016; Lin and Li 2014; Moridis et al. 2018) and defines *perceived playfulness* as follows:

On the basis of the [*sic*] Csikszentmihalyi’s and Deci’s works, we define three dimensions of perceived playfulness: the extent to which the individual (a) perceives that his or her attention is focused on the interaction with the WWW; (b) is curious during the interaction; and (c) finds the interaction intrinsically enjoyable or interesting. (Moon and Kim 2001, p. 219)

This theme describes playfulness as synonymous with a depth of involvement with an experience. Li, Theng, and Foo, for example, note that playfulness “represents whether an individual is interested, attracted, and engaged in a certain activity” (2016, p. 176). Besio and colleagues define playfulness as “the degree to which the child is involved in play” (2016, p. 98). Several other authors describe involvement as on an experiential scale where more involvement is defined as more playful (Costello and Edmonds 2007, p. 77; Taharim et al. 2014, p. 21). An extreme end of this engagement depth is discussed using the word ‘immersion,’ which is a key feature to certain definitions in this theme (Fine 2014; Kuo et al. 2016). Csikszentmihalyi’s conceptualization of flow is also used in this theme to support claims that playfulness is absorbing (Fine 2014 p. 4) or captivating (Boberg et al. 2015), and is used as an extreme type of playful engagement in the study of museums (Taheri and Jafari 2014, p. 9).

This theme usually describes a state of mind that a crafted environment seeks to cause in its users. In this way, this theme not only describes a *state of mind* for users, but is also used to measure whether a *context* should be viewed as consistently enabling playfulness. Several definitions in this theme also theorize aspects of playful environments that cause deep engagement (Boberg et al. 2015; Kuo et al. 2016; Pons et al. 2014; Pons et al. 2015, Sethna et al. 2018). Thus, when engaging with a single context is structurally treated as the priority, then that is defined as playful.

Theme 2: 'Openness'

This theme of playfulness describes a generalized *willingness to engage* with any context. Playfulness is further defined as an openness to interacting with most contexts and expecting them to be emotionally rewarding. This form of playfulness is also described as flexible capacity to engage even when the experience is complicated or ambiguous. The opposite of this form of playfulness is rejection: ignoring stimuli. An example would be if a person is rushing to work, they may ignore a dog wagging their tail and may even become habituated to ignoring such stimuli and thus feel there were no opportunities to be playful. If a person instead engaged with the external environment, perceiving these opportunities for engagement and enjoying them, that would be playful.

Definitions within this theme include several modern conceptualizations, including Gordon's (2014) conceptualization of playfulness as an expression of psychologically healthy development or Bateson and Martin's (2013) definition of playfulness for creativity research, and it is also present in education (Graven and Schafer 2014; van der Meij et al. 2017), sexuality research (Paasonen 2018), and coaching research (Lockwood and O'Connor 2017).

This theme of playfulness often describes interpreting daily life to be something that is engaging. Zimmerman defines gaming literacy as "playful — having a ludic attitude that sees the world's structures as opportunities for playful engagement" (2008, p. 161). Gordon similarly defines playfulness as a reinterpretation of the world where individuals "view strangers as potential playmates and new environments as potential playgrounds" (2014, p. 246). Several authors connected to this theme describe playfulness using the word 'spontaneity' (Anderson et al. 2013; Guitard et al. 2005; Lockwood and O'Connor 2017). When 'spontaneity' is used in this theme, it refers to a willingness to engage with the world without deeply considering the frame of that engagement.

Other definitions in this theme focus upon defining playfulness as an open response to change. Graven and Schafer depict this when they say: "Being playful, in the present context, means being ready, willing, and able to perceive or construct variations on learning situations and thus to be more creative in interpreting and reacting to problems" (Graven and Schafer 2014, p. 172). This attitude of adapting to a changing context is sometimes the definitive feature of playfulness often through the term 'flexibility' (Bateson 2015; Chang et al. 2016; Menashe-Grinberg and Atzaba-Poria 2017; Møller 2015; van der Meij et al. 2017; Youell 2008). A willingness to change expectations or rules is also similar to how *paidia* is used to define playfulness. Caillois (2001) argued that games should be analyzed based upon how limited players' actions are by rules. He wrote that the play of games exists upon a continuum from *paidia* to *ludus*. *Paidia* is typified by an unconstrained change in

engagement patterns, whereas *ludus* is typified by strict adherence to a single set of rules. A preference for change is also present in sexuality research where playfulness is defined as “a mode, capacity and orientation of sensory openness, curiosity and zest for variation” (Paasonen 2018, p. 1). Thus, when engagement with a new or changing context is treated as the priority, then that is defined as playful.

Theme 3: ‘Framing’

The framing theme of playfulness describes *changing one’s perceived context in order to further engage oneself or others*. Playfulness is further defined as an active and intentional way of refocusing the perspective of a social group and generating emotions by doing so. The opposite of playful framing is being passive, accepting the world as it is whether interesting or not. One example is someone who does not know how to re-frame reality in a way that is engaging. A second example is someone who has the skill to re-frame reality but chooses not to offer this alternate interpretation. If the person instead actively changed what was focused on by telling a joke or offering a game to those around them, they would be more playful.

This theme included the most heavily cited definitions of playfulness. Bundy’s Test of Playfulness is a widely used test to assess playfulness in occupational therapy (Besio et al. 2016; Chan et al. 2016; Fabrizi 2014; Fabrizi et al. 2016; Lee et al. 2016; O’Brien and Duren 2014; Pearton et al. 2014; Pinchover 2017; Pinchover et al. 2016; Ríos-Rincón et al. 2016; Román-Oyola et al. 2018). It defines playfulness as the ‘disposition to play’ and measures how playful an individual child’s play is over a period of time. Bundy’s conceptualization lists four criteria: internal locus of control, intrinsic motivation, suspension of reality, and framing. The first three criteria are derived from Neumann’s *The Elements of Play* (1971), a theoretical text about play and its connection to education (see also Muys et al. 2006). Neumann defines the experience of play as being fundamentally about a child having the power to define the playful context when they wrote: “Play implies freedom of the child and his activity while non-play implies restriction of the child and his activity” (Neumann 1971, p. 8). The final criterion derives from the work of Bateson (1955; 1972), who, according to Bundy and colleagues, “described play as an important arena in which children frame their play by giving and reading social cues, e.g., ‘I’m playing now. This is how you should act toward me’” (2001, p. 278). This criterion derives from the Batesonian concept of *metacommunication*, where a message is specifically used to frame an act of play as an act of play (Bateson 1972) This definition seems to focus upon playfulness as *the degree to which a child is defining the context of their play*.

Other commonly cited definitions in this theme are the definitions of playfulness as a personality trait as seen in modern psychology research on playfulness. Barnett (2007) conducted a series of focus groups with university students on what makes a playful person. Barnett concluded playfulness was the “predisposition to frame (or reframe) a situation in such a way as to provide oneself (and possibly others) with amusement, humor, and/or entertainment” (2007, p. 955). Barnett’s framework has been cited numerous times (Barnett 2017; Barnett and Owens 2015; Berger et al. 2018; Clarke and Basilio 2018; Leung 2014; Proyer 2012; Proyer 2014a; Proyer 2014b; Proyer 2014c; Yue et al. 2016). It is also similar to the second most common definition of playfulness as a personality trait in psychology: the OLIW (other-directed, lighthearted, intellectual, and whimsical). Proyer defines playfulness in terms of the OLIW as follows:

Playfulness is an individual differences variable that allows people to frame or reframe everyday situations in a way such that they experience them as entertaining, and/or intellectually stimulating, and/or personally interesting. (Proyer 2017b, p. 8)

This conceptualization was also cited several times in the sample, though only by publications in which Proyer was involved as a co-author (Brauer and Proyer 2017; Proyer and Brauer 2018; Proyer et al. 2018; Proyer et al. 2019a; Proyer et al. 2019b).

In addition to Barnett's and Proyer's conceptualizations of playfulness, other definitions in this theme also use the term 'framing' (Warmelink 2014). Other authors in this theme discuss playfulness as defining activities (Glynn and Webster 1992), and as a method of structuring daily lives (Singer 2015). Thus, when an individual is *changing their current context* to increase engagement, that is defined as playful.

Theme 4: 'Non-Consequential'

This theme describes playfulness as *engaging in an activity without an expected outcome*. Playfulness is further defined as interactions that generate emotional or intellectual reinforcement through a particular process and thus require no further consequence to be a sought-after experience. The opposite of this form of playfulness is goal-driven behavior. An example would be a person who has the goal of getting to work and chooses to drive their car in order to achieve that goal. If the person were to instead want the experience of driving and was picking a destination that did not achieve any goal, that would be playful.

The most commonly cited definition in this theme is Huizinga's definition of play as a "free activity standing quite consciously outside 'ordinary' life as being 'not serious,' but at the same time absorbing the players intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it" (2002, p. 13). Huizinga is cited several times in the sample as defining playfulness (Cermak-Sassenrath 2015; Nisula et al. 2014; Tomitsch et al. 2014).

Authors in this theme define playfulness as engaging in contexts that lack consequence or are perceived to lack consequence. Lucero and colleagues describe the playful mindset as "something not serious, with neither a clear goal nor real-world consequences" (2014, p. 36). Several authors present the most essential part of playfulness as individuals perceiving a separation or safety from real-world consequences during play (Kerr and Apter 1991; Whitton and Moseley 2012; Zhu and Morosan 2014). This focus of playfulness having a boundary separating it from 'real' outcomes also is very close to how other definitions describe playfulness as non-productive (Rodríguez-Ardura and Meseguer-Artola 2018, p. 7) or producing no material gains (An 2018, p. 12).⁷ Other conceptualizations in this theme focus upon playfulness lacking goals or purpose. Brown and Leigh define playfulness in creativity as "linked to an unfixed purpose" (2018, p. 6). Other authors define playfulness as lacking a "direct goal" (Tomitsch et al. 2014, p. 1) or being against external goals (van Manen 2018, p. 679). It is common in this theme to discuss playfulness as inverting the relationship between means and goals. Non-playful experiences are presented as having goals and means are selected to achieve those goals. Playfulness does the opposite, seeking an experience and selecting goals and limitations in order to achieve that experience. This inversion of means and ends is

depicted by Stenros when he describes playfulness as “autotelic; it is its own reward” (2015, p. 92). Dewey similarly argues that, in play, “the activity is its own end, instead of it having an ulterior result” (1923, p. 238). This inversion is how ‘intrinsic motivation’ is presented in this theme. Autotelic (Csikszentmihalyi 1975a), paratelic (Kerr and Apter 1991), and self-determination theory (Deci and Ryan 2000) were all used as theoretical tools to describe seeking an engaged experience rather than some justifying consequence. Thus, when an individual is engaging without a perceived external consequence, that is defined as playful.

Theme 5: ‘Non-Real Reality’

This theme of playfulness describes *engaging with reality in a way that is knowingly false*. Playfulness is further defined by imagining an alternative reality that for a short period of time draws more attention and creates more emotional involvement than a normal reality that will return after the imagination is finished. The opposite of this form of playfulness is accuracy or doubt: choosing to focus on what is seen as real in most contexts rather than what would be engaging in the present. An example would be a parent seeing a child pretending a stick was a sword and telling the child that sticks are not swords. If the parent were to ignore how reality worked and instead imagine that stick was a sword in order to create an engaging experience, that would be playful.

Vygotsky describes this form of playfulness when defining a *pivot* in imagination play: “A pile of clothes or piece of wood becomes a baby in a game because the same gestures that depict holding a baby in one’s hands or feeding a baby can apply to them” (Vygotsky 1980, p. 108). In essence, pretending to be in a reality that does not exist becomes a powerful way for an individual to engage in a way that would not be possible in their current reality. Dewey emphasizes this further when he notes that “the playful attitude is one of freedom. The person is not bound to the physical traits of things, nor does he care whether a thing really means (as we say) what he takes it to represent” (1997, p. 162). Researchers studying playfulness in adolescents also focus upon the power of imagination to free individuals from undesired aspects of reality when they discuss how “[p]layful talk creates an imaginary space where the institutional structures of one’s positional identity may be loosened” (Sullivan and Wilson 2015, p. 9). In drama education this theme is represented by definitions such as: “Play/playfulness: being in an ‘as if’ space, improvising” (Craft et al. 2013, p. 22). This viewpoint of playfulness is also used in international discourses on human rights to play. In a policy paper written for the United Nations, Lester and Russell define playfulness as “[t]he ability to move from the adult-organised world to an ‘as if’ position or stance” (2010, p. 7). Atzaba-Poriam Cabrera, Menashe, and Karberg’s Parental Playfulness Scale similarly measures the degree to which pretend play by parents detaches from factual reality by treating “cooking toys as drums, hats, or in ways that represented other objects” (2014, p. 763).

This non-real behavior can also be described as constructing an entirely separate playful reality,⁸ such as when Thibault writes:

The player, then, oscillates between two different worlds, those of the real world and the world of play, acting almost as if the latter was real. According to Lotman, this is the underlying structure of every form of play, the very basis of playfulness. (Thibault 2016, p. 299)

Other authors, such as Winnicott (1991, p. 51) seem to describe a similar concept using the terms external reality and internal reality. Thus, when an individual is seeking engagement through a non-real context, that is defined as playful.

Theme 6: ‘Unconventional’

This theme describes a world where *many patterns exist and only some of them are conventionally considered relevant*. Playfulness is further defined as choosing to manipulate these unconventional patterns in order to include others in a social context, more deeply understand a known system, or create an emotionally rewarding experience. The opposite of this playfulness is being appropriate. The appropriate person may agree that a pattern exists, but they also require that acting upon the pattern is contextually justified in the situation. An example would be if a person on a message board saw other users making puns based upon similar sounds in words and thought, ‘I’m going to focus on the real issue.’ If the person did not worry about why the pattern was happening and instead chose to extend the pattern by adding another pun, that would be playful.

The most commonly used definition in this theme is the definition of playfulness proposed by Lieberman in *Playfulness: Its Relationship to Imagination and Creativity* (1977). She conducted multiple ethnographies of preschool-aged children and adolescents playing in the United States and concluded that “playfulness [...] arises in familiar physical settings or when the individual has the pertinent facts; then imagination enters by twisting those facts into different combinations, not unlike the operation of a kaleidoscope” (1977, p. xi). This definition of playfulness is considered widely influential and is also the theoretical foundation for the Children’s Playfulness Scale (Barnett 1990) and the Microcomputer Playfulness Scale (Webster and Martocchio 1992).

This theme frequently describes word play such as in Pharies’s *Structure and Analogy in the Playful Lexicon of Spanish*, where he attempts to theoretically address playful aspects of the Spanish language such as “sound-symbolism, onomatopoeia and expressivism” (2015, p. 20). He argues that “[p]lay that is focused on the lexicon is based on the manipulation of paradigms and convergences—on a radical process of lexical cross-referencing and systematization” (Pharies 2015, p. 18). This playful emphasis on formal patterns is presented as at odds with semantic interpretation. Several other authors also define playful language as the manipulation of form in words rather than content of those words (Crystal 1996, p. 334; Guo 2018; Vaisman 2014, p. 70). The Playful Experiences Framework (PLEX) defines a similar concept for game studies as:

[P]layfulness is foremost a state of mind that provides enjoyment. In most cases, this enjoyment arises from doing (everyday) activities in a way that is different from how they are usually performed (e.g., typing a phone number in a rhythmical pattern). (Lucero and Arrasvuori 2010, p. 36–37)

Rhythmical typing would not normally be considered the main priority for typing in a phone number and thus represents an unconventional engagement.

Other definitions in this theme present playfulness as frequently changing what is considered relevant, such as Sutton-Smith who defines playfulness as “that which

plays with normal expectations of play itself [...]. Playful would be that which plays with the frames of play” (Sutton-Smith 1997, p. 147–148). This playing with the frames of play appears to describe an unconventional engagement with the conventions of play and making it difficult to even establish what is being treated as conventional. This is also very close to Gordon’s conceptualization of playfulness as an attitude that “enables us to step outside of and manipulate interpretive frames from the perspective of another frame” (2008, p. 6). Thus, when an individual is seeking engagement through an *unconventional interaction* with their context, that is defined as playful.

Discussion and Conclusion

In our systematic and multidisciplinary review of the conceptualization of playfulness in recent academic literature, based on 429 written works and the 184 extracted definitions, accounts of playfulness were divided in *six thematic categories*. The first three themes relate playfulness to different methods of seeking engagement in relation to context(s) and the other three themes relate to what contexts playfulness is willing to engage in. Based on this review, playfulness appears to be most synthesizable as the following method for organizing engagement:

Playfulness prioritizes engagement over external consequence, realness, or convention.

This synthesis brings two elements of playfulness into focus that are normally left implied: *engagement* and *playful organization of context*. Playfulness was found in this synthesis to most clearly be neither a ‘what’ or a ‘why’ but rather a ‘how.’ This study supports the idea that any activity, motivation, or affordance can be playful based upon how it is structured or organized. If a person (intentionally or unintentionally) chooses engagement over reality, they are choosing playfully. If an object is designed to generate engagement more than a relevant consequence, it is playful in its design. What makes a moment typically playful is engagement being operationally treated as the priority regardless of its ultimate motivation. This description of playfulness as an *organizing principle* is an unusual conceptualization and opens up new possibilities for future research, especially for playfulness interventions in occupational therapy, gamification, and positive psychology.

In conclusion, let us look at a few examples of how this model can expand current discourses of playfulness: the ‘playfulness vs. gamefulness’ distinction (e.g., Deterding et al. 2011) separates playful engagement supported by a rule-bound structure (typified as ‘gamefulness’), and playful engagement without explicit rules (‘playfulness’). What they are describing can instead be seen, through the new model, not as two different phenomena but as two different contexts. Playfulness as a degree of *engagement with a single context* asserts that deeper engagement for players can occur because of engaging rules. Playfulness as an *openness to engage* studies how players are willing to engage without rules and will ignore rules that stop them. Playfulness is both typified by following engaging rules and not following not engaging rules. By separating the two contexts as two different phenomena scholars make it difficult to see the overlap: playfulness is organizing the frame of interaction to act upon what is engaging. In future work, rather than discussing an experience of,

'rule-bound gamefulness' versus 'non-rule-bound playfulness,' it seems more useful to analyze how specific rules are affecting engagement for specific players.

This speaks to a deeper criticism of Caillois's (2001) continuum of *paidia* ('free play') and *ludus* ('game play'). This continuum is frequently used in game studies in order to come to terms with how rules and playfulness theoretically interact. In other fields, more than these two models exist. Players are also described as playful when creating, modifying, or removing rules such as in the Test of Playfulness, which assesses a child who "[a]ctively modifies complexity/demands of activity" as playful (Bundy et al. 2001, p. 282), a common theme for playfulness as *changing a current context*. Playfulness is also described as the act of manipulating rules beyond their conventional meaning as depicted in playfulness as an *unconventional interaction*. In short, rules can cause engagement even when they're not being followed. Rule-following *ludus* or 'gamefulness' is not useful to view as an opposite to *paidia* or 'playfulness,' it is a subset of playfulness. It seems more insightful to address that playfulness chooses the context of interaction that is most engaging and is willing to bend, break, create, or follow rules for this engagement. This also underlines a deeper need for unpacking more of the *rhetorics of rules* surrounding playfulness in future work.

Other conundrums can also be unpacked using this model. In analyzing metacommunication in play-fighting between puppies, Bateson argued that "[t]he playful nip denotes the bite, but it does not denote what would be denoted by the bite" (1972, p. 186). The newly proposed model would reframe this biting as the source of engagement for playful nipping. Since nipping is playful, the engagement of biting is the priority, whereas the reality and consequences of biting are not the priority. Playful framing allows the puppy to modify their behavior to no longer bite the play partner while still engaging as if they were biting. In short: a nip is engaging like a bite, but it is not a bite; a nip is a playfully organized fictional bite. This same explanation also seems to describe other forms of animal play that mimic a behavior while avoiding the most prominent consequences such as play wrestling in rats, which mimics sexual wrestling (Pellis and Pellis 2013).

While necessarily brief, these examples will have further illustrated some of the ways in which the proposed model can add depth and clarity to future discussions on playfulness. The aim of this article has been to further current discourses of playfulness by bringing them in contact with each other and to establish a synthetic bird's eye view of the field. We argue that future academic works should engage with literature outside of any one disciplinary conception. Finally, the characteristics of *engagement* and *playful organization* should be investigated more deeply.

References

- An, C. (2018) On Learning, Playfulness, and Becoming Human. *Philosophy*, Vol. 93 (1), pp. 3–29.
- Anderson, S., Roggman, L. A., Innocenti, M. S., and Cook, G. A. (2013) Dads' Parenting Interactions with Children: Checklist of Observations Linked to

- Outcomes (PICCOLO-D). *Infant Mental Health Journal*, Vol. 34 (4), pp. 339–351.
- Arrasvuori, J., Boberg, M., Holopainen, J., Korhonen, H., Lucero, A., and Montola, M. (2011) Applying the PLEX Framework in Designing for Playfulness. *Proceedings of the 2011 Conference on Designing Pleasurable Products and Interfaces*, pp. 1–8.
- Atzaba-Poria, N., Cabrera, N. J., Menashe, A., and Karberg, E. (2014) The Parent-Child Playfulness System. Unpublished manuscript, Ben-Gurion University of the Negev, Beer Sheva, Israel.
- Barnett, L. A. (1990) Playfulness: Definition, Design, and Measurement. *Play and Culture*, Vol. 3 (4), pp. 319–336.
- Barnett, L. A. (2007) The Nature of Playfulness in Young Adults. *Personality and Individual Differences*, Vol. 43 (4), pp. 949–958.
- Barnett, L. A. (2017) The Inculcation of Adult Playfulness: From West to East. *International Journal of Play*, Vol. 6 (3), pp. 255–271.
- Barnett, L. A. (2018) Conceptual Models of the Playfulness Construct: Additive, Balanced, or Synergistic? *Archives of Psychology*, Vol. 2 (7). Available from: <https://archivesofpsychology.org/index.php/aop/article/view/79> [accessed 13 August 2021].
- Barnett, L., and Owens, M. (2015) Does Play Have to Be Playful? In: Johnson, J. E., Eberle, S. G., Henricks, T. S., and Kushner, D. (eds.) *The Handbook of the Study of Play*. Lanham: Rowman & Littlefield, pp. 453–459.
- Bateson, G. (1955) A Theory of Play and Fantasy. *Psychiatric Research Reports*, Vol. 2, pp. 39–51.
- Bateson, G. (1972) *Steps to an Ecology of Mind: Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*. Chicago: University of Chicago Press.
- Bateson, P. (2015) Playfulness and Creativity. *Current Biology*, Vol. 25 (1), pp. 12–16.
- Bateson, P., and Martin, P. (2013) *Play, Playfulness, Creativity and Innovation*. Cambridge: Cambridge University Press.
- Berger, P., Bitsch, F., Bröhl, H., and Falkenberg, I. (2018) Play and Playfulness in Psychiatry: A Selective Review. *International Journal of Play*, Vol. 7 (2), pp. 210–225.
- Besio, S., Bonarini, A., Bulgarelli, D., Carnesecchi, M., Riva, C., and Veronese, F. (2016) Is Play Easier for Children with Physical Impairment with Mainstream Robots? Accessibility Issues and Playfulness. *Proceedings of the Conference Universal Learning Design*, Vol. 5, pp. 97–107.

- Bischof, A., Lefevre, K., Kurze, A., Storz, M., Totzauer, S., and Berger, A. (2016). Exploring the Playfulness of Tools for Co-designing Smart Connected Devices: A Case Study with Blind and Visually Impaired Students. *Proceedings of the 2016 Annual Symposium on Computer-Human Interaction in Play Companion Extended Abstracts*, pp. 93–99.
- Boberg, M., Karapanos, E., Holopainen, J., and Lucero, A. (2015) PLEXQ: Towards a Playful Experiences Questionnaire. *Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play*, pp. 381–391.
- Brauer, K., and Proyer, R. T. (2017) Are Impostors Playful? Testing the Association of Adult Playfulness with the Impostor Phenomenon. *Personality and Individual Differences*, Vol. 116, pp. 57–62.
- Brown, N., and Leigh, J. (2018) Creativity and Playfulness in Higher Education Research. In: Huisman, J. and Tight, M. (eds.) *Theory and Method in Higher Education Research*. Bingley: Emerald Publishing Limited, pp. 49–66.
- Bundy, A. C. (1987) *The Play of Preschoolers: Its Relationship to Balance, Motor Proficiency, and the Effect of Sensory Integrative Dysfunction*. PhD thesis, Boston University.
- Bundy, A. C., Nelson, L., Metzger, M., and Bingaman, K. (2001) Validity and Reliability of a Test of Playfulness. *OTJR: Occupation, Participation and Health*, Vol. 21 (4), pp. 276–292.
- Caillois, R. (2001) *Man, Play and Games*. Urbana: University of Illinois Press.
- Cermak-Sassenrath, D. (2015) Playful Computer Interaction. In: Lange, M., Raessens, J., Mul, J., Lammes, S., and Frissen, V. (eds.) *Playful Identities: The Ludification of Digital Media Cultures*. Amsterdam: Amsterdam University Press, pp. 93–110
- Chan, P. C., Chen, C. T., Feng, H., Lee, Y. C., and Chen, K. L. (2016) Theory of Mind Deficit Is Associated with Pretend Play Performance, but not Playfulness, in Children with Autism Spectrum Disorder. *Hong Kong Journal of Occupational Therapy*, Vol. 28 (1), pp. 43–52.
- Chang, P. J., Yarnal, C., and Chick, G. (2016) The Longitudinal Association Between Playfulness and Resilience in Older Women Engaged in the Red Hat Society. *Journal Of Leisure Research*, Vol. 48 (3), pp. 210–227.
- Clarke, T., and Basilio, M. (2018) Do Arts Subjects Matter for Secondary School Students' Wellbeing? The Role of Creative Engagement and Playfulness. *Thinking Skills and Creativity*, Vol. 29, pp. 97–114.
- Codish, D., and Ravid, G. (2014) Academic Course Gamification: The Art of Perceived Playfulness. *Interdisciplinary Journal Of E-Learning and Learning Objects*, Vol. 10 (1), pp. 131–151.

- Costello, B., and Edmonds, E. (2007) A Study in Play, Pleasure and Interaction Design. *Proceedings of the 2007 Conference on Designing Pleasurable Products and Interfaces*, pp. 76–91.
- Craft, A., Cremin, T., Burnard, P., Dragovic, T., and Chappell, K. (2013) Possibility Thinking: Culminative Studies of an Evidence-Based Concept Driving Creativity? *Education 3–13*, Vol. 41 (5), pp. 538–556.
- Crystal, D. (1996) Language Play and Linguistic Intervention. *Child Language Teaching and Therapy*, Vol. 12 (3), pp. 328–344.
- Csikszentmihalyi, M. (1975a) *Beyond Boredom and Anxiety*. San Francisco: Jossey-Bass.
- Csikszentmihalyi, M. (1975b) Play and Intrinsic Rewards. *Journal Of Humanistic Psychology*, Vol. 15 (3), pp. 41–63.
- Csikszentmihalyi, M. (1990) *Flow: The Psychology of Optimal Experience*. New York: Harper & Row.
- Deci, E. L., and Ryan, R. M. (2000) The “What” and “Why” of Goal Pursuits: Human Needs and The Self-Determination of Behavior. *Psychological Inquiry*, Vol. 11 (4), pp. 227–268.
- DeKoven, B. (2014) *A Playful Path*. Pittsburgh: ETC Press.
- Deterding, S., Dixon, D., Khaled, R., and Nacke, L. (2011) From Game Design Elements to Gamefulness: Defining “Gamification.” *Proceedings of the 15th International Academic Mindtrek Conference: Envisioning Future Media Environments*, pp. 9–15.
- Dewey, J. (1923) *Democracy and Education: An Introduction to the Philosophy of Education*. New York: Macmillan.
- Dewey, J. (1997) *How We Think*. North Chelmsford: Courier Corporation.
- Fabrizi, S. (2014) *Measuring the Playfulness of Children with Special Needs in Occupational Therapist Led, Caregiver-Included Community Playgroups*. PhD thesis, Nova Southeastern University.
- Fabrizi, S. E., Ito, M. A., and Winston, K. (2016) Effect of Occupational Therapy–Led Playgroups in Early Intervention on Child Playfulness and Caregiver Responsiveness: A Repeated-Measures Design. *American Journal of Occupational Therapy*, Vol. 70 (2). Available from: <https://ajot.aota.org/article.aspx?articleid=2482787> [accessed 13 August 2021].
- Ferland, F. (1997) *Play, Children with Physical Disabilities and Occupational Therapy: The Ludic Model*. Ottawa: University of Ottawa Press.
- Fine, S. (2014) “A Slow Revolution”: Toward a Theory of Intellectual Playfulness in High School Classrooms. *Harvard Educational Review*, Vol. 84 (1), pp. 1–23.

- Fullerton, T. (2008) *Game Design Workshop: A Playcentric Approach to Creating Innovative Games*. 3rd edition. Boca Raton: CRC Press.
- Glynn, M. A., and Webster, J. (1992) The Adult Playfulness Scale: An Initial Assessment. *Psychological Reports*, Vol. 71(1), pp. 83–103.
- Gordon, G. (2008) What Is Play? In Search of a Universal Definition. *Play And Culture Studies*, Vol. 8, pp. 1–21.
- Gordon, G. (2014) Well Played: The Origins and Future of Playfulness. *American Journal of Play*, Vol. 6 (2), pp. 234–266.
- Goulding, C. (2002) *Grounded Theory: A Practical Guide for Management, Business and Market Researchers*. Thousand Oaks: Sage.
- Graven, M., and Schafer, M. (2014) A Love for Mathematical Playfulness as a Key Ingredient of Mathematical Knowledge for Teaching. In: Venkat, H., Rollnick, M., Loughran, J., and Askew, M. (eds.) *Exploring Mathematics and Science Teachers' Knowledge: Windows into Teacher Thinking*. New York: Routledge pp. 163–178.
- Guitard, P., Ferland, F., and Dutil, É. (2005) Toward a Better Understanding of Playfulness in Adults. *OTJR: Occupation, Participation and Health*, Vol. 25 (1), pp. 9–22.
- Guo, M. (2018) Playfulness, Parody, and Carnival: Catchphrases and Mood on the Chinese Internet from 2003 to 2015. *Communication and the Public*, Vol. 3 (2), pp. 134–150.
- Hsieh, S. H., and Tseng, T. H. (2017) Playfulness in Mobile Instant Messaging: Examining the Influence of Emoticons and Text Messaging on Social Interaction. *Computers in Human Behavior*, Vol. 69, pp. 405–414.
- Huizinga, J. (2002) *Homo Ludens: A Study of Play-Element in Culture*. Abingdon: Routledge.
- Hung, S. Y., Tsai, J. C. A., and Chou, S. T. (2016) Decomposing Perceived Playfulness: A Contextual Examination of Two Social Networking Sites. *Information & Management*, Vol. 53 (6), pp. 698–716.
- Kerr, J. H., and Apter, M. J. (1991) *Adult Play: A Reversal Theory Approach*. Amsterdam: Swets & Zeitlinger.
- Kitchenham, B., and Charters, S. (2007) *Guidelines for Performing Systematic Literature Reviews in Software Engineering*. Joint report, Keele University and Durham University. Available from: https://www.elsevier.com/_data/promis_misc/525444systematicreviewsguide.pdf [accessed 13 August 2021].
- Kuo, N. T., Chang, K. C., Cheng, Y. S., and Lin, J. C. (2016) Effects of Tour Guide Interpretation and Tourist Satisfaction on Destination Loyalty in Taiwan's

- Kinmen Battlefield Tourism: Perceived Playfulness and Perceived Flow as Moderators. *Journal Of Travel & Tourism Marketing*, Vol. 33 (1), pp. 103–122.
- Landers, R. N., Tondello, G. F., Kappen, D. L., Collmus, A. B., Mekler, E. D., and Nacke, L. E. (2019) Defining Gameful Experience as a Psychological State Caused by Gameplay: Replacing the Term ‘Gamefulness’ with Three Distinct Constructs. *International Journal of Human-Computer Studies*, Vol. 127, pp. 81–94.
- Lazzaro, N. (2009) Why We Play: Affect and the Fun of Games. *Human-Computer Interaction: Designing for Diverse Users and Domains*, Vol. 155, pp. 679–700.
- Lee, Y. C., Chan, P. C., Lin, S. K., Chen, C. T., Huang, C. Y., and Chen, K. L. (2016) Correlation Patterns Between Pretend Play and Playfulness in Children with Autism Spectrum Disorder, Developmental Delay, and Typical Development. *Research in Autism Spectrum Disorders*, Vol. 24, pp. 29–38.
- Lester, S., and Russell, W. (2010) *Children’s Right to Play: An Examination of the Importance of Play in the Lives of Children Worldwide*. The Hague: Bernard van Leer Foundation.
- Leung, C. L. R. (2014). Adult Playfulness and Its Relationship with Humor, Subjective Happiness and Depression: A Comparative Study of Hong Kong and Mainland China. *Discovery: SS Student E-Journal*, Vol. 3, pp. 105–141. Available from: <http://ssweb.cityu.edu.hk/download/RS/E-Journal/Vol3/journal4.pdf> [accessed 13 August 2021].
- Li, C. H., and Chang, C. M. (2016) The Influence of Trust and Perceived Playfulness on the Relationship Commitment of Hospitality Online Social Network-Moderating Effects of Gender. *International Journal of Contemporary Hospitality Management*, Vol. 28 (5), pp. 924–944.
- Li, J., Theng, Y. L., and Foo, S. (2016) Exergames for Older Adults with Subthreshold Depression: Does Higher Playfulness Lead to Better Improvement in Depression? *Games for Health Journal*, Vol. 5 (3), pp. 175–182.
- Lieberman, J. N. (2014) *Playfulness: Its Relationship to Imagination and Creativity*. Cambridge, MA: Academic Press.
- Lin, T. T., and Li, L. (2014) Perceived Characteristics, Perceived Popularity, and Playfulness: Youth Adoption of Mobile Instant Messaging in China. *China Media Research*, Vol. 10 (2), pp. 60–71.
- Lockwood, R., and O’Connor, S. (2017) Playfulness in Adults: An Examination of Play and Playfulness and Their Implications for Coaching. *Coaching: An International Journal of Theory, Research and Practice*, Vol. 10 (1), pp. 54–65.
- Loukatari, P., Matsouka, O., Papadimitriou, K., Nani, S., and Grammatikopoulos, V. (2019) The Effect of a Structured Playfulness Program on Social Skills in

- Kindergarten Children. *International Journal of Instruction*, Vol. 12 (3), pp. 237–252.
- Lucero, A., and Arrasvuori, J. (2010) PLEX Cards: A Source of Inspiration When Designing for Playfulness. *Proceedings of the 3rd International Conference on Fun and Games*, pp. 28–37.
- Lucero, A., Karapanos, E., Arrasvuori, J., and Korhonen, H. (2014) Playful or Gameful? Creating Delightful User Experiences. *Interactions*, Vol. 21 (3), pp. 34–39.
- Malone T. W. (1981) What Makes Computer Games Fun? *Byte*, pp. 258–276.
- Masek, L. (2020) *Playfulness as an Organization of Experience: Prioritizing Engagement over Realness, Relevance, or Consequence*. MA thesis, Tampere University.
- Maslow, A. H. (1971) *The Farther Reaches of Human Nature*. New York: Viking Press.
- Márquez Segura, E., Turmo Vidal, L., Rostami, A., and Waern, A. (2016) Embodied Sketching. *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems*, pp. 6014–6027.
- Menashe-Grinberg, A., and Atzaba-Poria, N. (2017) Mother–Child and Father–Child Play Interaction: The Importance of Parental Playfulness as a Moderator of the Links between Parental Behavior and Child Negativity. *Infant Mental Health Journal*, Vol. 38 (6), pp. 772–784.
- Moon, J., and Kim, Y. (2001) Extending the TAM for a World-Wide-Web Context. *Information & Management*, Vol. 38 (4), pp. 217–230.
- Moridis, C. N., Terzis, V., Economides, A. A., Karlovasitou, A., and Karabatakis, V. E. (2018) Using EEG Frontal Asymmetry to Predict IT User’s Perceptions Regarding Usefulness, Ease of Use and Playfulness. *Applied Psychophysiology and Biofeedback*, Vol. 43 (1), pp. 1–11.
- Møller, S. J. (2015) Imagination, Playfulness, and Creativity in Children’s Play with Different Toys. *American Journal of Play*, Vol. 7 (3), pp. 322–346.
- Muys, V., Rodger, S., and Bundy, A. C. (2006) Assessment of Playfulness in Children with Autistic Disorder: A Comparison of the Children’s Playfulness Scale and the Test of Playfulness. *OTJR: Occupation, Participation and Health*, Vol. 26 (4), pp. 159–170.
- Neumann, E. A. (1971) *The Elements of Play*. PhD thesis, University of Illinois at Urbana-Champaign.
- Nisula, A. M., Kallio, A., Oikarinen, T., and Kianto, A. (2014) Fostering Team Creativity and Innovativeness with Playfulness: A Multi-Case Study. *International Journal of Innovation and Learning*, Vol. 17 (1), pp. 79–97.

- O'Brien, J. C., and Duren, G. J. (2014) Play and Playfulness. In: Soloman, J. W. and O'Brien, J. C. (eds.) *Pediatric Skills for Occupational Therapy Assistants-E-Book*. Maryland Heights: Mosby, pp. 443–462.
- Paasonen, S. (2018) Many Splendored Things: Sexuality, Playfulness and Play. *Sexualities*, Vol. 21 (4), pp. 537–551.
- Paterson, B. L., Thorne, S. E., Canam, C., and Jillings, C. (2001) *Meta-Study of Qualitative Health Research: A Practical Guide to Meta-Analysis and Meta-Synthesis*. Thousand Oaks: Sage.
- Pearton, J. L., Ramugondo, E., Cloete, L., and Cordier, R. (2014) Playfulness and Prenatal Alcohol Exposure: A Comparative Study. *Australian Occupational Therapy Journal*, Vol. 61 (4), pp. 259–267.
- Pellis, S., and Pellis, V. (2013) *The Playful Brain: Venturing to the Limits of Neuroscience*. New York: Simon and Schuster.
- Pharies, D. A. (2015) *Structure and Analogy in the Playful Lexicon of Spanish*. Berlin: De Gruyter.
- Pinchover, S. (2017) The Relation between Teachers' and Children's Playfulness: A Pilot Study. *Frontiers in Psychology*, Vol. 8, pp. 1–8.
- Pinchover, S., Shulman, C., and Bundy, A. (2016) A Comparison of Playfulness of Young Children with and without Autism Spectrum Disorder in Interactions with Their Mothers and Teachers. *Early Child Development and Care*, Vol. 186 (12), pp. 1893–1906.
- Pons, P., Jaen, J., and Catala, A. (2015) Envisioning Future Playful Interactive Environments for Animals. In: Anton, N. (ed.) *More Playful User Interfaces: Interfaces that Invite Social and Physical Interaction*. Singapore: Springer Singapore, pp. 121–150.
- Popay, J., Rogers, A., and Williams, G. (1998) Rationale and Standards for the Systematic Review of Qualitative Literature in Health Services Research. *Qualitative Health Research*, Vol. 8 (3), pp. 341–351.
- Proyer, R. T. (2012) Development and Initial Assessment of a Short Measure for Adult Playfulness: The SMAP. *Personality and Individual Differences*, Vol. 53 (8), pp. 989–994.
- Proyer, R. T. (2014a) Perceived Functions of Playfulness in Adults: Does It Mobilize You at Work, Rest, and When Being with Others? *Revue Européenne de Psychologie Appliquée/European Review of Applied Psychology*, Vol. 64 (5), pp. 241–250.
- Proyer, R. T. (2014b) Playfulness Over the Lifespan and Its Relation to Happiness. *Zeitschrift für Gerontologie und Geriatrie*, Vol. 47 (6), pp. 508–512.

- Proyer, R. T. (2014c) To Love and Play: Testing the Association of Adult Playfulness with the Relationship Personality and Relationship Satisfaction. *Current Psychology*, Vol. 33 (4), pp. 501–514.
- Proyer, R. T. (2017a) A Multidisciplinary Perspective on Adult Play and Playfulness. *International Journal of Play*, Vol. 6 (3), pp. 241–243.
- Proyer, R. T. (2017b) A New Structural Model for the Study of Adult Playfulness: Assessment and Exploration of an Understudied Individual Differences Variable. *Personality and Individual Differences*, Vol. 108, pp. 113–122.
- Proyer, R. T. (2018) Playfulness and Humor in Psychology: An Overview and Update. *Humor*, Vol. 31 (2), pp. 259–271.
- Proyer, R. T., and Brauer, K. (2018) Exploring Adult Playfulness: Examining the Accuracy of Personality Judgments at Zero-Acquaintance and an LIWC Analysis of Textual Information. *Journal of Research in Personality*, Vol. 73, pp. 12–20.
- Proyer, R. T., Brauer, K., Wolf, A., and Chick, G. (2019a) Adult Playfulness and Relationship Satisfaction: An APIM Analysis of Romantic Couples. *Journal Of Research in Personality*, Vol. 79, pp. 40–48.
- Proyer, R. T., Gander, F., Bertenshaw, E. J., and Brauer, K. (2018) The Positive Relationships of Playfulness with Indicators of Health, Activity, and Physical Fitness. *Frontiers in Psychology*, Vol. 9, pp. 1–16.
- Proyer, R. T., Tandler, N., and Brauer, K. (2019b) Playfulness and Creativity: A Selective Review. In: Luria, S. R., Baer, J., and Kaufman, J. C. (eds.) *Creativity and Humor*. Cambridge, MA: Academic Press, pp. 43–60.
- Richter, S. H., Kästner, N., Kriwet, M., Kaiser, S., and Sachser, N. (2016) Play Matters: The Surprising Relationship Between Juvenile Playfulness and Anxiety in Later Life. *Animal Behaviour*, Vol. 114, pp. 261–271.
- Ríos-Rincón, A. M., Adams, K., Magill-Evans, J., and Cook, A. (2016) Playfulness in Children with Limited Motor Abilities When Using a Robot. *Physical & Occupational Therapy in Pediatrics*, Vol. 36 (3), pp. 232–246.
- Rodríguez-Ardura, I., and Meseguer-Artola, A. (2018) The Playfulness of Facebook: Shaped by Underlying Psychological Drivers and Gender Differences. *Telematics and Informatics*, Vol. 35 (8), pp. 2254–2269.
- Román-Oyola, R., Figueroa-Feliciano, V., Torres-Martínez, Y., Torres-Vélez, J., Encarnación-Pizarro, K., Fragoso-Pagán, S., and Torres-Colón, L. (2018) Play, Playfulness, and Self-Efficacy: Parental Experiences With Children on the Autism Spectrum. *Occupational Therapy International*, Vol. 2018. Available from: <https://www.hindawi.com/journals/oti/2018/4636780/> [accessed 13 August 2021].

- Salen, K., and Zimmerman, E. (2004) *Rules of Play: Game Design Fundamentals*. Cambridge, MA: MIT Press.
- Sandelowski, M., and Barroso, J. (2002) Reading Qualitative Studies. *International Journal of Qualitative Methods*, Vol. 1 (1), pp. 74–108.
- Sandelowski, M., Docherty, S., and Emden, C. (1997) Qualitative Metasynthesis: Issues and Techniques. *Research in Nursing & Health*, Vol. 20 (4), pp. 365–371.
- Sanderson, R. C. (2010) *Towards a New Measure of Playfulness: The Capacity to Fully and Freely Engage in Play*. PhD thesis, Loyola University Chicago.
- Schaefer, C., and Greenberg, R. (1997) Measurement of Playfulness: A Neglected Therapist Variable. *International Journal of Play Therapy*, Vol. 6 (2), pp. 21–31.
- Schechner, R. (1988) Playing. *Play & Culture*, Vol. 1 (1), pp. 3–19.
- Schechner, R. (2012) *Performance Studies: An Introduction*. New York: Routledge.
- Schell, J. (2019) *The Art of Game Design: A Book of Lenses*. 3rd edition. Natick: AK Peters/CRC Press.
- Sethna, V., Murray, L., Edmondson, O., Iles, J., and Ramchandani, P. G. (2018) Depression and Playfulness in Fathers and Young Infants: A Matched Design Comparison Study. *Journal of Affective Disorders*, Vol. 229, pp. 364–370.
- Shen, X. S., Chick, G., and Zinn, H. (2014) Playfulness in Adulthood as a Personality Trait: A Reconceptualization and a New Measurement. *Journal of Leisure Research*, Vol. 46 (1), pp. 58–83.
- Sicart, M. (2014) *Play Matters*. Cambridge, MA: MIT Press.
- Singer, E. (2015) Play and Playfulness in Early Childhood Education and Care. *Psychology in Russia*, Vol. 8 (2), pp. 27–35.
- Skard G, and Bundy A. (2008) Test of Playfulness. In: Parham, L. D. and Fazio, L. S. (eds.), *Play in Occupational Therapy for Children*. St. Louis: Mosby Elsevier, pp. 71–93.
- Stenros, J. (2015) *Playfulness, Play, and Games: A Constructionist Ludology Approach*. PhD thesis, University of Tampere.
- Stern, P. N., and Harris, C. C. (1985) Women's Health and the Self-Care Paradox. A Model to Guide Self-Care Readiness. *Health Care for Women International*, Vol. 6 (1–3), pp. 151–163.
- Strauss, A., and Corbin, J. (1998) *Basics of Qualitative Research Techniques*. Thousand Oaks: Sage Publications.

- Sullivan, F. R., and Wilson, N. C. (2015) Playful Talk: Negotiating Opportunities to Learn in Collaborative Groups. *Journal of the Learning Sciences*, Vol. 24 (1), pp. 5–52.
- Sutton-Smith, B. (1997) *The Ambiguity of Play*. Cambridge, MA: Harvard University Press.
- Taharim, N. F., Lokman, A. M., Isa, W. A. R. W. M., and Noor, N. L. M. (2014) A Theoretical Framework of Playful Interaction in Mobile Learning. In: *Proceedings of the Eighth International Conference on Next Generation Mobile Apps, Services and Technologies*, pp. 19–23.
- Taheri, B., and Jafari, A. (2014) Museums as Playful Venues in the Leisure Society. In: Sharpley, R. and Stone, P. (eds.) *Contemporary Tourist Experience: Concepts and Consequences*. New York: Routledge, pp. 201–215.
- Thibault, M. (2016) Lotman and Play: For a Theory of Playfulness Based on Semiotics of Culture. *Σημειωτική: Sign Systems Studies*, Vol. 44 (3), pp. 295–325.
- Tomitsch, M., Ackad, C., Dawson, O., Hespanhol, L., and Kay, J. (2014, June) Who Cares about the Content? An Analysis of Playful Behaviour at a Public Display. *Proceedings of the International Symposium on Pervasive Displays*, pp. 160–165.
- Turner, V. (1986) Body, Brain and Culture. *Performing Arts Journal*, Vol. 10 (2), pp. 26–34.
- Vaisman, C. L. (2014) Beautiful Script, Cute Spelling and Glamorous Words: Doing Girlhood Through Language Playfulness on Israeli Blogs. *Language & Communication*, Vol. 34, pp. 69–80.
- van Der Meij, M. G., Broerse, J. E., and Kupper, F. (2017) Conceptualizing Playfulness for Reflection Processes in Responsible Research and Innovation Contexts: A Narrative Literature Review. *Journal Of Responsible Innovation*, Vol. 4 (1), pp. 43–63.
- van Manen, M. (2018) Serendipitous Insights and Kairos Playfulness. *Qualitative Inquiry*, Vol. 24 (9), pp. 672–680.
- van Vleet, M., and Feeney, B. C. (2015) Play Behavior and Playfulness in Adulthood. *Social and Personality Psychology Compass*, Vol. 9 (11), pp. 630–643.
- Vygotsky, L. S. (1980) *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
- Walsh, D., and Downe, S. (2005) Meta-Synthesis Method for Qualitative Research: A Literature Review. *Journal of Advanced Nursing*, Vol. 50 (2), pp. 204–211.
- Warmelink, H. (2014) *Online Gaming and Playful Organization*. New York: Routledge.

- Webster, J., and Martocchio, J. J. (1992) Microcomputer Playfulness: Development of A Measure with Workplace Implications. *MIS Quarterly*, Vol. 16 (2), pp. 201–226.
- Webster, J., and Watson, R. T. (2002) Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*, Vol. 26 (2), pp. xiii–xxiii.
- Whitton, N., and Moseley, A. (eds.) (2012) *Good Game Design is Good Learning Design: Using Games to Enhance Learning and Teaching: A Beginner's Guide*. New York: Routledge.
- Winnicott, D. W. (1991) *Playing and Reality*. Hove: Psychology Press.
- Yarnal, C., and Qian, X. (2011) Older-Adult Playfulness: An Innovative Construct and Measurement for Healthy Aging Research. *American Journal of Play*, Vol. 4 (1), pp. 52–79.
- Yin, R. K. (2015) *Qualitative Research from Start to Finish*. New York: Guilford Publications.
- Youell, B. (2008) The Importance of Play and Playfulness. *European Journal of Psychotherapy & Counselling*, Vol. 10 (2), pp. 121–129.
- Yu, P., Wu, J. J., Chen, I. H., and Lin, Y. T. (2007) Is Playfulness a Benefit to Work? Empirical Evidence of Professionals in Taiwan. *International Journal of Technology Management*, Vol. 39 (3-4), pp. 412–429.
- Yue, X. D., Leung, C. L., and Hiranandani, N. A. (2016) Adult Playfulness, Humor Styles, and Subjective Happiness. *Psychological Reports*, Vol. 119 (3), pp. 630–640.
- Zhu, W. W., and Morosan, C. (2014) An Empirical Examination of Guests' Adoption of Interactive Mobile Technologies in Hotels: Revisiting Cognitive Absorption, Playfulness, and Security. *Journal of Hospitality and Tourism Technology*, Vol. 5 (1), pp. 78–94.
- Zimmerman, E. (2008) Gaming Literacy: Game Design as a Model for Literacy in the Twenty-First Century. In: Perron, B. and Wolf, M. J. P. (eds.) *The Video Game Theory Reader 2*. New York: Routledge, pp. 45–54.

Notes

- ¹ This article is a refined and concise reworking of Masek's MA thesis *Playfulness as an Organization of Experience: Prioritizing Engagement over Realness, Relevance, or Consequence* (2020).
- ² For example, it is common in psychology to discuss playfulness as a 'personality trait' or as a 'state of mind' (see Shen et al. 2014). From the perspective of literature studies, analyzing the artifactual qualities of a specific narrative, this

psychological division is not applicable to their non-psychological narratological goals.

- ³ For example, Richter and colleagues (2016) measured playfulness in mice based on two types of movement “very rapid, horizontally directed jerk-run sequences (jumping, Table 1) and rapid 'bouncing' in a vertical direction” (2016, p. 263). This seems to describe an observation technique for playfulness rather than a claim about what playfulness is.
- ⁴ All entries were coded in the following way: (1) Texts were identified and added to a database of literature that defined playfulness. Background information including academic citation were coded based upon previous meta-syntheses (Sandelowski and Barroso 2002). (2) Texts were searched for uses of the words ‘play,’ ‘playful,’ and ‘playfulness.’ Definitions and surrounding material were closely read and a representative quote for how that work defined playfulness was selected. Additional information was coded on how the definition was constructed. (3) Quotations were compared to each other and re-assembled based upon thematic similarities. Theoretical saturation was checked. (4) Thematic categories were analyzed based upon constituent quotations. Six themes were analyzed as present in the data. (5) A broader theoretical interpretation was constructed connecting the six themes into a new definition of playfulness.
- ⁵ This approach comes with considerable criticism. There are critiques that “synthesis is reductionist” (Walsh and Downe 2005, p. 205). There are numerous details about every reviewed work that will not be explored during this literature review, reducing the “desired thickness of particulars” (Sandelowski et al. 1997, p. 366). There is also criticism that this will neither be a complete nor random sample. These sampling methods will not create a statistically full representation of previous academic work on playfulness. Important conceptualizations of the internal experience of play will use a diversity of language including ‘play’ or ‘game,’ and if they never use the word ‘playfulness,’ they would be left out of this sample. In addition, this study only analyzed texts written or translated into English. The sample reviewed also focused upon written works with playfulness in the title from 2014 to 2019, or having a direct citation from a written work with that criterion. There are probably several conceptualizations of playfulness that did not use the term in the title but did use it in the abstract or body text. In addition, there are probably conceptualizations of playfulness that have not been cited recently, but that will be used in the future. While it is thus likely that multiple relevant works were not included in this literature review, the goal of this review was to focus on articles that researched playfulness directly in a recent time period. In our view, the primary goal of arriving at an understanding of the academic culture surrounding ‘playfulness’ as a scientific phenomenon was sufficiently addressed with this method.
- ⁶ It is valuable at this point to discuss a major academic conflict over the nature of engagement and positivity. One of the most common factors to define the experience of being within a playful engagement are the terms ‘enjoyment,’ ‘pleasure,’ or ‘fun’ (Barnett 2007; Bundy et al. 2001; DeKoven 2014; Fullerton

2008; Glynn and Webster 1992; Hsieh and Tseng 2017; Lazzaro 2009; Lieberman 1977; Maslow 1971; Moon and Kim 2001; Schaefer and Greenburg 1997; Schell 2019; Shen et al. 2014; Sicart 2014; van Vleet and Feeney 2015; Yarnal and Qian 2011). Several other authors have directly criticized this analysis of universal positivity within playful experiences as unjustified (Arrasvuori et al. 2011; Kerr and Apter 1991; Proyer 2017b; Tamborini et al. 2010; Schechner 2012; Stenros 2015; Sutton-Smith 1997). These critics argue that playfulness can have a negative hedonic tone and that negative emotional experience can reinforce the act of play. There is no direct *bottom-up* research that analyzes whether individuals would self-identify negative hedonic tone as potentially 'playful.' Thus, rather than using terminology with positive connotations we argue that the more neutral term 'emotional reinforcement' is more appropriate than terms such as 'enjoyment' or 'fun.'

- 7 Playfulness is also described in other themes as including activities done for their own sake or in other ways lacking normal perception of consequences. This is an element of the Test of Playfulness (Bundy et al., 2001), and a feature of 'lighthearted' playfulness in the OLIW (Proyer 2017b). These theories were analyzed as focusing more upon the act of framing than the process-oriented quality of playfulness.
- 8 This is also very close to how the suspension of reality criteria in the Test of Playfulness is described.